Amendments to the Claims:

Please add new Claims 14 and 15 as follows:

1. (previously presented) A system for inspecting an object, the system comprising a work surface providing an object plane on which, in use, the object to be inspected is located; and a camera having a focal point and a field of vision, the camera being arranged with respect to the work surface so that at least part of the work surface is within the camera's field of vision, the camera being arranged to capture an image of the object, the image comprising a plurality of image data components, the system further including an apparatus for processing the object image, the apparatus being arranged to receive the image data components from the camera and to generate, using said image data components, three dimensional data representing the object, and wherein in order to generate said three dimensional data the apparatus is arranged to identify a plurality of said image data components that represent the position of a respective edge component of the object in an image plane, wherein, during the capture of an image by the camera, the camera and the object are fixed with respect to one another, the processing apparatus being arranged to project each image edge data component onto the object plane to produce a respective object edge data component in the object plane, the processing apparatus being further arranged to determine whether each object edge data component relates to an edge of the object that lies on the work surface or to an edge of the object that is offset above the work surface and, upon determining that an object edge data component relates to an edge of the object that is offset above the work surface, to adjust the value of the object edge data component by an amount depending on the ratio of the size of the offset in a direction generally perpendicular with the work surface to the perpendicular distance of the camera's focal point from the object plane.

2. (original) A system as claimed in Claim 1, wherein when an edge profile of the object taken in a plane generally perpendicular to the object plane is generally perpendicular to the object plane, or is undercut, said object edge data component is adjusted by subtracting an amount substantially equal to said ratio multiplied by the relative distance between the object edge data component and the position of the camera's focal point in the object plane.

3. (previously presented) A system as claimed in Claim 1, wherein when an edge profile of the object taken in a plane generally perpendicular to the object plane is beveled, the processing apparatus is arranged to determine if the angle of the beveled edge profile is greater than the angle made by a line of sight from the camera's focal point to said object edge data component and, upon so determining, to adjust said object edge data component by subtracting an amount substantially equal to said ratio multiplied by the relative distance between the object edge data component and the position of the camera's focal point in the object plane and by adding an amount substantially equal to the distance in the object plane between the edges of the beveled profile along said line of sight.

4. (original) A system as claimed in Claim 1, wherein when an edge profile of the object taken in a plane generally perpendicular to the object plane is undercut and when the processing apparatus determines that an object edge data component relates to an edge of the object that lies on the work surface, the processing apparatus is arranged to determine if the angle of the undercut edge profile is greater than the angle made by a line of sight from the camera's focal point to said object edge data component and, upon so determining, to adjust said object edge data component by an amount substantially equal to the distance in the object plane between the edges of the undercut profile along said line of sight.

5. (original) A system as claimed in Claim 1, wherein the processing apparatus determines whether each object edge data component relates to an edge of the object that lies on the work surface or to an edge of the object that is spaced apart from the work surface by calculating a respective first parameter relating to a notional reference line extending from the object edge data component, calculating a second parameter relating to a notional line extending between the object data component and a reference point in the object plane, and comparing the difference between said first parameter and said second parameter against a threshold value.

6. (original) A system as claimed in Claim 5, wherein said first parameter comprises the value of an angle between an angle reference axis and said notional reference line extending from the object edge data component.

7. (original) A system as claimed in Claim 5, wherein said second parameter comprises the value of an angle between the angle reference axis and said notional reference line extending between the object edge data component and said reference point.

8. (original) A system as claimed in Claim 5, wherein said reference point on the object plane comprises the position of the camera's focal point in the object plane and said notional reference line extending from the object edge data component comprises a line normal to the object at said object edge data component, and wherein said threshold value is 90 degrees.

9. (original) A system as claimed in Claim 1, wherein the processing apparatus is arranged to calculate a line of sight from the camera's focal point to the object edge data component and to determine the point at which the line of sight substantially meets the object edge, and to determine the amount of the offset depending on the location of said point.

10. (original) A system as claimed in Claim 9, wherein the line of sight lies in a plane substantially normal to the edge of the object at the location of the object edge data component.

11. (previously presented) An apparatus for processing an image, the apparatus being suitable for use in a system for inspecting an object, the system comprising a work surface providing an object plane on which, in use, the object to be inspected is located; and a camera having a focal point and a field of vision arranged with respect to the work surface so that at least part of the work surface is within the camera's field of vision, the camera being arranged to capture an image of the object, the image comprising a plurality of image data components, the apparatus being arranged to receive the image data components from the camera and to generate, using said image data components, three dimensional data representing the object, and wherein in order to generate said three dimensional data the apparatus is arranged to identify a plurality of said image data components that represent the position of a respective edge component of the object in an image plane, wherein, during the capture of an image by the camera, the camera and the object are fixed with respect to one another, the processing apparatus being arranged to project each image edge data component onto the object plane to produce a respective object edge data component in the object plane,

the processing apparatus being further arranged to determine whether each object edge data component relates to an edge of the object that lies on the work surface or to an edge of the object that is offset above the work surface and, upon determining that an object edge data component relates to an edge of the object that is offset above the work surface, to adjust the value of the object edge data component by an amount depending on the ratio of the size of the offset in a direction generally perpendicular with the work surface to the perpendicular distance of the camera's focal point from the object plane.

12. (previously presented) A method of processing an object image in a system for inspecting an object, the system comprising a work surface providing an object plane on which, in use, the object to be inspected is located; and a camera having a focal point and a filed of vision arranged with respect to the work surface so that at least part of the work surface is within the camera's field of vision, the camera being arranged to capture an image of the object, the image comprising a plurality of image data components, and wherein, during the capture of an image by the camera, the camera and the object are fixed with respect to one another, the method comprising receiving the image data components from the camera; generating, using said image data components, three dimensional data representing the object; identifying a plurality of said image data components that represent the position of a respective edge component of the object in an image plane; projecting each image edge data component onto the object plane to produce a respective object edge data component in the object plane; determining whether each object edge data component relates to an edge of the object that lies on the work surface or to an edge of the object that is offset above the work surface; and, upon determining that an object edge data component relates to an edge of the object that is offset above the work surface, adjusting the value of the object edge data component by an amount depending on the ratio of the size of the offset in a direction generally perpendicular with the work surface to the perpendicular distance of the camera's focal point from the object plane.

13. (original) A computer program product comprising computer usable code for causing a computer to perform the method of Claim 12.

14. (New) A system as claimed in claim 1, wherein said object is substantially planar and has a substantially constant thickness, said processing apparatus being arranged to combine said object edge data components with a data component representing said thickness in order to generate said three dimensional data representing said object.

15. (New) A system as claimed in claim 1, wherein said processing apparatus is arranged to generate said three dimensional data from object edge data components obtained from a single image of said object.